

| APPLICABLE STANDARD | | | | | |
|--|--|--------------------------|--|--|------------------|
| RATING | OPERATING TEMPERATURE RANGE | -55 °C TO 105 °C | STORAGE TEMPERATURE RANGE | -10 °C TO 50 °C (PACKED CONDITION) | |
| | VOLTAGE | 50 V AC / DC | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90 % MAX (NOT DEWED) | |
| | CURRENT | 0.5 A | APPLICABLE CABLE | t=0.3±0.03mm, GOLD PLATING | |
| SPECIFICATIONS | | | | | |
| ITEM | TEST METHOD | | REQUIREMENTS | QT | AT |
| CONSTRUCTION | | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | | × | × |
| ELECTRICAL CHARACTERISTICS | | | | | |
| VOLTAGE PROOF | 250 V AC FOR 1 min. | | NO FLASHOVER OR BREAKDOWN. | × | — |
| INSULATION RESISTANCE | 100 V DC. | | 500 MΩ MIN. | × | — |
| CONTACT RESISTANCE | AC/DC 20 mV MAX (AC:1 KHz) , 1 mA . | | 100 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | × | — |
| MECHANICAL CHARACTERISTICS | | | | | |
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 AXIAL DIRECTIONS. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. | × | — |
| SHOCK | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS. | | ② CONTACT RESISTANCE: 100 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENTION FORCE | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.) | | DIRECTION OF INSERTION : (TOP CONTACT) 0.2N × NUMBER OF CONTACTS + 2.5 MIN. (BOTTOM CONTACT) 0.3N × NUMBER OF CONTACTS + 2.5 MIN. (note 1) | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55→+15 TO +35→+105→+15 TO +35 °C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min UNDER 5 CYCLES. | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | | × | — |
| DAMP HEAT, CYCLIC | EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h. | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DRY HEAT | EXPOSED AT 105±2 °C, 96 h | | ① CONTACT RESISTANCE: 100 mΩ MAX. | × | — |
| COLD | EXPOSED AT -55±3 °C, 96 h. | | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| | | | | | |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| | 1 | DIS-F-00014061 | SE. YOKOYAMA | HY. YAMAZAKI | 20220531 |
| REMARK | | | APPROVED | YN. TAKASHITA | 20190409 |
| This product is RoHS compliant. Unless otherwise specified, refer to IEC 60512. | | | CHECKED | SJ. OKAMURA | 20190409 |
| | | | DESIGNED | NY. YAMASHIRO | 20190408 |
| | | | DRAWN | NY. YAMASHIRO | 20190408 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC-387736-50-00 |
| HRS | SPECIFICATION SHEET | | PART NO. | FH34D-*S-0. 5SH (50) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL580 | △ 1/2 |

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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.


SPECIFICATIONS



| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---------------------------------------|---|---|----|----|
| SULPHUR DIOXIDE [JIS C 60068-2-42] | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% 25±5 ppm FOR 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX. | x | — |
| | | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | x | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235±5°C FOR IMMERSION DURATION, 2±0.5 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. | x | — |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING : PEAK TMP. 250 °C MAX . REFLOW TMP. OVER 230 °C WITHIN 60 sec. 2) SOLDERING IRONS : TMP. 350 ± 10 °C FOR 5±1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | x | — |

(note1)

FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.
DO NOT CLOSE THE ACTUATOR BEFORE INSERTING FPC EVEN AFTER THE CONNECTOR IS MOUNTED ONTO A PCB. CLOSING THE ACTUATOR WITHOUT FPC COULD MAKE THE CONTACT GAP SMALLER, WHICH INCREASES THE FPC INSERTION FORCE.

THIS CONNECTOR HAS CONTACTS ON THE BOTH TOP AND BOTTOM.

 THERE'S A CASE WHICH FPC/FFC RETENTION FORCE DOESN'T FULFILL THE VALUE,
BECAUSE FPC/FFC SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.

| | | | | | |
|---|---------------------------|-------------|----------|----------------------|---|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | | ELC-387736-50-00 | |
|  | SPECIFICATION SHEET | | PART NO. | FH34D-*S-0. 5SH (50) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO | CL580 |  2/2 |